



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,227	08/20/2004	Alban Couturier	Q83028	2136
72875 7590 01/15/2009 SUGHRUE MION, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037				
EXAMINER				
CHRISS, ANDREW W				
ART UNIT		PAPER NUMBER		
2419				
NOTIFICATION DATE		DELIVERY MODE		
01/15/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@sughrue.com
kglyndman@sughrue.com
USPatDocketing@sughrue.com

Office Action Summary**Application No.**

10/505,227

Applicant(s)

COUTURIER, ALBAN

Examiner

Andrew Chriss

Art Unit

2419

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-14 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 20 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment, filed October 31, 2008 has been entered and carefully considered. Claims 2, 3, 7, 8, 10, 11, and 13 are amended, and Claims 1-14 are currently pending.
2. In light of Applicant's amendment to Claims 2, 3, 7, 8, 10, 11, and 13, rejection of said claims under 35 U.S.C. 112, second paragraph, is withdrawn, as well as objection to the specification.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-14** rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: Claim 1 cites "means for receiving," "control means," and "means for correlating." Claims 9 and 14 cites "means for receiving" and "means for communicating." However, Applicant's specification does not disclose as to what said means comprise, per 35 U.S.C. 112, sixth paragraph. Therefore, Examiner is unable to determine the scope of the claimed means. Claims 2-8 and 10-13 depend on Claims 1 and 9, respectively, and fail to resolve the deficiencies therein.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1, 5-7, 9, 12 and 14** rejected under 35 U.S.C. 102(e) as being anticipated by Oosthoek et al (United States Patent Application Publication US 2002/0156599 A1), hereinafter Oosthoek.

Regarding Claims 1, 9, and 14, Oosthoek discloses an ingress node 16 that performs functionalities equivalent to Applicant's claimed means for receiving, control means, means for correlating, and means for communicating. Specifically, the ingress node comprises a per aggregate flow QoS management system (paragraph 0019), wherein an ingress node accepts flows of traffic to be aggregated in respective reservation states or classes (paragraph 0018). Further microflows are associated with requests comprising performance demands, such as bandwidth assurance, delay, and packet losses (paragraph 0017). When resource requests associated with individual microflows are received at an ingress node, they are grouped together for a resource request for an interior network (paragraph 0020). The reservation request on the internal network specifies an aggregated state to which it pertains, such as a DiffServ DSCP service class (paragraph 0020). The reservation request is carried out by sending a single resource request through the interior network to an egress node (paragraph 0020). A decision is

then made as to whether to reserve the resources associated with the request (paragraphs 0020 and 0021).

Regarding Claim 5, Oosthoek discloses granting a resource request if the resources are available, and denying the request if resources are not available (paragraphs 0020 and 0021), equivalent to Applicant's claimed "atomic" network monitoring.

Regarding Claim 6, Oosthoek discloses determining whether resources are available prior to making a change in a specified aggregated reservation state (paragraph 0020).

Regarding Claims 7 and 12, Oosthoek discloses an edge-to-edge aggregated reservation request wherein the individual flows are transparent to interior nodes on the network (paragraph 0020), equivalent to the claimed limitation of sharing bandwidth among correlated quality of service requests.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
9. **Claims 2-4, 10, and 11** rejected under 35 U.S.C. 103(a) as being unpatentable over Oosthoek in view of Bolding et al (United States Patent 7,272,651), hereinafter Bolding.

Regarding Claims 2, 3, 10, and 11, Oosthoek discloses all of the limitations of Claims 1 and 9, as described above. However, Oosthoek may not disclose correlating microflows by comparing 5-tuples or source/destination addresses. In the same field of endeavor, Bolding discloses identifying a flow through a network via a 5-tuple, comprising a source and destination IP address, source and destination port numbers, and a protocol (column 11, lines 6-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the RSVP reservation disclosed in Bolding with the aggregated resource reservation requests disclosed in Oosthoek in order to reserve network resources on behalf of a multimedia server lacking RSVP capabilities.

Regarding Claim 4, Oosthoek discloses all of the limitations of Claims 1 and 9, as described above. However, Oosthoek may not disclose a control means comprising a software module remote from a correlation means communicating via a communication protocol. In the same field of endeavor, Bolding discloses a router comprising separate modules (Figure 3), including a differentiated service entity 332 (correlating means) remote from an RSVP transmitter proxy 318 (control means). Further, Bolding discloses that the RSVP transmitter proxy 318 operates in accordance with RFC 2205 (column 7, lines 22-26), which is known to one of ordinary skill in the art to comprise program instructions. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the RSVP reservation disclosed in Bolding with the aggregated resource reservation requests disclosed in

Oosthoek in order to reserve network resources on behalf of a multimedia server lacking RSVP capabilities.

10. **Claims 8 and 13** rejected under 35 U.S.C. 103(a) as being unpatentable over Oosthoek in view of Mohaban et al (United States Patent 6,788,647), hereinafter Mohaban. Oosthoek discloses all of the limitations of Claims 1 and 9, as described above. However, Oosthoek may not disclose anticipating microflows of return packets and to consider them to determine the correlated resource reservation requests. In the same field of endeavor, Mohaban discloses bi-directional QoS treatment for network data flows, wherein a packet is identified by its 5-tuple (source and destination IP address, source and destination port, and protocol) and given a quality of service treatment if a node determines that the packet is part of an already observed packet flow (column 8, lines 40-60; Figure 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the bi-directional QoS treatment disclosed in Mohaban with the aggregated resource reservation disclosed in Oosthoek in order to provide quality of service for bi-directional communications, such as symmetrical video conference call.

Response to Arguments

11. Applicant's arguments filed October 31, 2008 regarding rejection of Claims 1-14 under 35 U.S.C. 112, second paragraph, have been fully considered but they are not persuasive. Applicant submits that the disclosure of structure is "implicit or inherent in the specification [because] it would have been clear to those skilled in the art what structure...corresponds to the means-[]plus function claim limitation[s]." Applicant further states that the means plus function language in the independent claims "must be implemented by or on a general or special purpose

computer.” Examiner respectfully disagrees. Per MPEP 2105: “If there is no disclosure of structure, material or acts for performing the recited function, the claim fails to satisfy the requirements of 35 U.S.C. 112, second paragraph. > “[A] bare statement that known techniques or methods can be used does not disclose structure” in the context of a means plus function limitation. *Biomedino, LLC v. Waters Technology Corp.*, 490 F.3d 946, 952, 83 USPQ2d 1118, 1123 (Fed. Cir. 2007)(Disclosure that an invention “may be controlled by known differential pressure, valving and control equipment” was not a disclosure of any structure corresponding to the claimed “control means for operating [a] valving” and the claim was held indefinite.).” Applicant’s statement that the claimed means “must be implemented by or on a general or special purpose computer” cites an apparatus that could allegedly used for the claimed functionalities does not provide an inherent structure in compliance with 35 U.S.C. 112, sixth paragraph. Examiner further submits that even if one of ordinary skill in the art would agree that Applicant’s claimed means “must be implemented by or on a general or special purpose computer,” these cited apparatuses are too broad in scope to clearly convey the metes and bounds of said claim language. Rejection of Claims 1-14 under 35 U.S.C. 112, second paragraph, is therefore maintained.

12. Applicant's arguments filed October 31, 2008 regarding rejection of Claims 1, 5-7, 9, 12, and 14 under 35 U.S.C. 102(b) have been fully considered but they are not persuasive. Applicant states that Oosthoek fails to teach or suggest “the control means effects said control of said elements of said data network only once for the quality of service requests of each said set” (emphasis added by Applicant). Examiner respectfully disagrees. Paragraph 0020 of Oosthoek reads as follows:

“In the operation of network 10, the ingress node 16 receives resource requests from the external nodes, e.g., host 12, processes them and transforms them into an edge to edge reservation through the intermediate interior nodes of interior network 20. Thus, both ingress and egress nodes keep track of the microflows, but interior nodes do not see individual flows at all. In accordance with the protocol for reservation in the interior network, the ingress node gets a reservation request (e.g. using a per microflow reservation protocol like RSVP) and translates the reservation request into a resource request for the interior network. The reservation request specifies the aggregated state to which it pertains (e.g. using Diffserv DSCP service class). The request further specifies the number of resource units u to be reserved in the interior network for the particular microflow associated with the request. The reservation is carried out by sending a resource request through the interior network 20 to the egress node 18. In the intermediate interior nodes, the request is processed and, provided the resources are available, a change in the specified aggregated reservation state is made.”

As shown by the passage above, an edge-to-edge reservation is created throughout the interior nodes of an interior network. Although the microflows are tracked individually, the interior nodes only see the reservation request which specifies the aggregated state. Therefore, the interior nodes are controlled only once for the set of microflows covered by the aggregated reservation request. Applicant's statement that the ingress node performs control of the elements more than one time is not commensurate in scope with the claim language. Given its broadest reasonable interpretation, the claim language indicates that a quality of service request covers a set of microflows, and the control of the data network elements is performed based on each request. Based on this interpretation, a scenario could reasonably be contemplated wherein the elements have to be controlled again should another quality of service request be received for a newly received set of microflows. This scenario is anticipated by Oosthoek, as described above. Therefore, Claims 1, 5-7, 9, 12, and 14 under 35 U.S.C. 102(b) is maintained.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Chriss whose telephone number is (571)272-1774. The examiner can normally be reached on Monday - Friday, 7:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andrew Chriss
Examiner
Art Unit 2419
1/7/2009

/Hassan Kizou/
Supervisory Patent Examiner, Art Unit 2419